

Several new *Melaneros* from Sri Lanka and southern India (Coleoptera, Lycidae)

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Several new *Melaneros* from Sri Lanka and southern India (Coleoptera, Lycidae). - Following eight species are described: *Melaneros inermis* sp. n., *M. oculus* sp. n., *M. kejvali* sp. n., *M. cardamomensis* sp. n., *M. pacholatkoï* sp. n., *M. uzeli* sp. n., *M. bicoloratus* sp. n. and *M. parvus* sp. n. Male copulatory organs of all species and other important diagnostic features are figured.

Key-words: Taxonomy - Coleoptera - Lycidae - *Melaneros* - Sri Lanka - southern India

INTRODUCTION

The genus *Melaneros* is one of the largest genera of the family Lycidae. It comprises over 400 species distributed mostly in tropical regions, North America and eastern Asia, 21 of which are known from Sri Lanka. Although *Melaneros* of Ceylon has lately been revised (BOCAK & BOCAKOVA 1990), examination of some additional material yielded other new species. Relatively low vagility of these small animals living in the lowest stratum of tropical forest causes that the distribution range of most species is often strongly limited. Therefore, new material from different localities usually yields additional new species.

The genus *Melaneros* comprises small to medium-sized species provided with pronotum without carinae, irregular reticulate cells on the elytra and with male genitalia without lateral lobes. Unfortunately, identification of females is often impossible, because species of this genus show extensive variability in body coloration and other external characters. Moreover, the female genitalia are only weakly diversified. Therefore, this paper is based on the study of copulatory organs of males only.

ABBREVIATIONS:

- MHNG – Muséum d'histoire naturelle, Genève
NMPC – National Museum, Praha, Czech Republic
LMBC – author's collection

DESCRIPTIONS

Melaneros inermis sp. n.

Figs 1, 11, 23

Holotype: ♂ (LMBC), Sri Lanka, Idalgashinna, 25 km SW of Badulla, alt. 1400 m, 29. IV. – 1. V. 1994, Z. Kejval leg.

Etymology: *Inermis* (Lat.) – not armed, refers to the aedeagus without thorns.

DESCRIPTION

Body dark brown to black, only pronotum (except disc portion) and basal elytral half yellow. Head with large eyes, eye diameter 1.07 times longer than interocular distance (Fig. 23). Antennae slender (Fig. 11), reaching over elytral half, segment 4 is 1.3 times longer than 3. Pronotum transverse, lateral margins emarginate, posterior angles projected obliquely backwards (Fig. 23). Scutellum black, subquadrate. Elytra 3 times longer than humeral width, weakly widened posteriorly. Male genitalia simple, dorsoventrally arcuate, without thorns (Fig. 1).

Body length: 4.4 mm, humeral width: 1.2 mm.

COMMENTS: Semicircularly arcuate aedeagus is a synapomorphy on the basis of which *M. inermis* seems to be related to *M. arcuatus* (Bocák et Bocáková, 1990). It differs from this species in much smaller body size, in having only half of the elytra yellow and in the morphology of the aedeagus lacking a dorsoproximal thorn.

Melaneros oculus sp. n.

Figs 2, 12, 24

Holotype: ♂ (LMBC), Sri Lanka: Idalgashinna, 25 km SW of Badulla, alt. 1400 m, 29. IV. – 1. V. 1994, Z. Kejval leg.

Etymology: *Oculus* (Lat.) – big-eyed, refers to the large eyes of male.

DESCRIPTION

Body dark brown to black, only pronotum and elytra yellow. Head with large eyes, eye diameter 1.4 times longer than interocular distance (Fig. 24). Antennae slender (Fig. 12), reaching apical third of elytra, segment 4 is 1.2 times longer than 3. Pronotum trapezoidal, anterior margin strongly produced forwards, posterior angles projected obliquely backwards (Fig. 24). Scutellum black, square-shaped. Elytra 3.5 times longer than humeral width, nearly parallel-sided. Male genitalia simple, weakly dorsoventrally arcuate, provided with a dorsal thorn (Fig. 2). Body length: 5.43 mm, humeral width: 1.31 mm.

COMMENTS: *M. oculus* seems to be related to *M. aliquantulus* (BOCAK & BOCAKOVA 1990) on the basis of the slightly dorsoventrally arcuate aedeagus. On the contrary to *M. aliquantulus*, male genitalia of *M. oculus* are provided with a bilobed apical portion and with a thorn basally. Males of *M. oculus* have much larger eyes than those of *M. aliquantulus*.

Melaneros kejvali sp. n.

Figs 3, 4, 13, 25

Holotype: ♂ (LMBC), Sri Lanka: Idalgashinna, 25 km SW of Badulla, alt. 1400 m, 29. IV. – 1. V. 1994, Z. Kejval leg.

Etymology: named in honour of the collector.

DESCRIPTION

Body dark brown to black, only margins of pronotum, basal third of elytra and basal 2/3 of suture as well as basal 2/3 of lateral elytral margins yellow. Head with large eyes, eye diameter as long as interocular distance (Fig. 25). Antennae slender (Fig. 13), reaching elytral midlength, segment 3 much shorter than 4. Pronotum strongly transverse, posterior angles acute, projected obliquely backwards (Fig. 23). Scutellum black, square-shaped, weakly emarginate apically. Elytra 3 times longer than humeral width, almost parallel-sided. Male genitalia provided with a ventroapical opening in distal half and with two dorsoapical, medially divergent belts (Figs 3, 4). Body length: 4.7 mm, humeral width: 1.2 mm.

COMMENTS: The aedeagus provided with dorsoapical sutures as well as with a ventroapical opening seem to provide synapomorphies supporting the close relationships of *M. kejvali* sp. n. and *M. bicoloratus* sp. n. *M. kejvali* differs from the other species in having not flabellate male antennae, pronotal margins yellow and large ventroapical opening of aedeagus.

Melaneros cardamomensis sp. n.

Figs 7, 8, 14, 26

Holotype: ♂ (LMBC), S India: Kerala, Cardamom hills, 77°05'E 9°25'N, ca 50 km NW of Pathanamthitta, near Pambaiyar riv., alt. 300 m, 6. – 9. V. 1994, Z. Kejval leg. ; paratype, same data, 1 ♂ (LMBC).

Etymology: Named in reference to the type locality.

DESCRIPTION

Body dark brown to black, only pronotum, scutellum and almost whole elytra (except apical spots) yellow. Head with large, not very prominent eyes, eye diameter 1.5 times longer than interocular distance (Fig. 26). Antennae serrate (Fig. 14), reaching elytral midlength, segment 3 shorter but wider than 4. Pronotum strongly transverse, lateral margins nearly straight, posterior angles projected obliquely backwards (Fig. 26). Scutellum slightly trapezoidal with lateral margins divergent forwards. Elytra 2.7 times longer than humeral width, weakly widened posteriorly. Male genitalia ventrally arcuate in median portion, provided with a ventroapical opening (Fig. 7, 8). Body length: 4.8 mm, humeral width: 1.6 mm.

COMMENTS: It differs from all other known *Melaneros* species in the shape of aedeagus.

Melaneros pacholatko sp. n.

Figs 5, 6, 16, 27

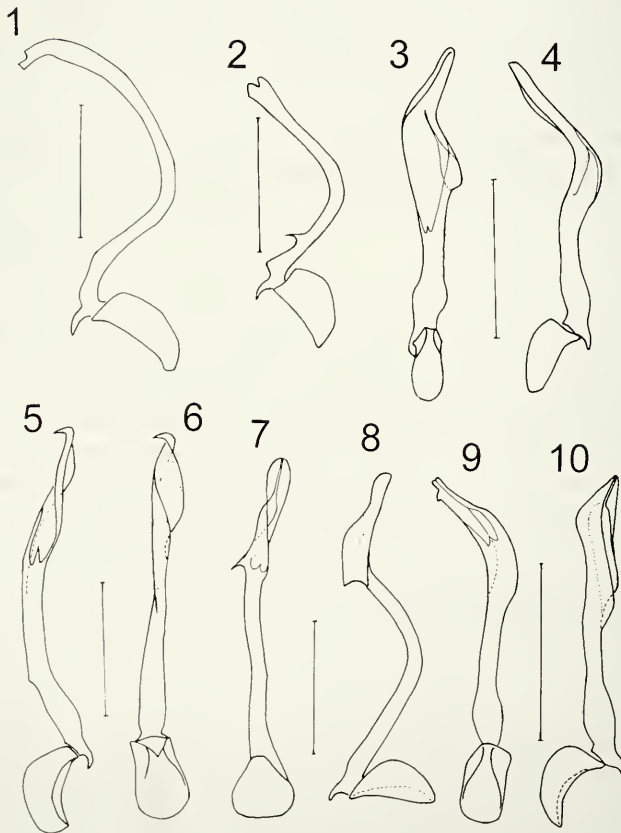
Holotype: ♂ (LMBC), S India, Tamil Nadu, 11.22N 76.56E, 15 km SE Kotagiri, Kunchappanai, 17.-22. V. 1997, Dembicky & P. Pacholátko leg.; paratypes: 1 ♀, the same data; (LMBC), 2 ♂, Tamil Nadu, 11.25N 76.52E, 6 km S of Kotagiri, Elk falls, 1650 m, 12. – 16. V. 1997, Dembicky & P. Pacholátko leg. (MHNG, LMBC).

Etymology: Named in honour of the collector, Mr. P. Pacholátko (Czech Republic).

DESCRIPTION

Body black, only basal half to 4/5 of elytra yellow. Head with slightly prominent eyes, eye diameter as long as interocular distance (Fig. 27). Antennae slender, reaching elytral midlength (Fig. 16). Segment 4 is 1.3 times longer than 3. Pronotum transverse, trapezoidal, anterior margin produced forwards (Fig. 27). Scutellum black, lateral margins divergent forwards, weakly emarginate apically. Elytra 2.8 times longer than humeral width, lateral margins weakly widened posteriorly. Male genitalia slender, slightly arched ventrally, provided with apical opening (Figs 5, 6). Body length: 4.4 – 4.8 mm, humeral width: 1.6 – 1.7 mm.

COMMENTS: On the basis of the shape of male genitalia this species seems to be related to *M. pseudopicianus* Bocáková, 1997. It differs from it in having pronotum and scutellum black and in the shape of apex of the aedeagus.



Figs 1-10

Male genitalia of: 1: *Melaneros inermis* sp. n., 2: *M. oculus* sp. n., 3-4: *M. kejvali* sp. n., 5-6: *M. pacholatkoii* sp. n., 7-8: *M. cardanomensis* sp. n., 9-10: *M. bicoloratus* sp. n. Scale = 0.5 mm.

Melaneros uzeli sp. n.

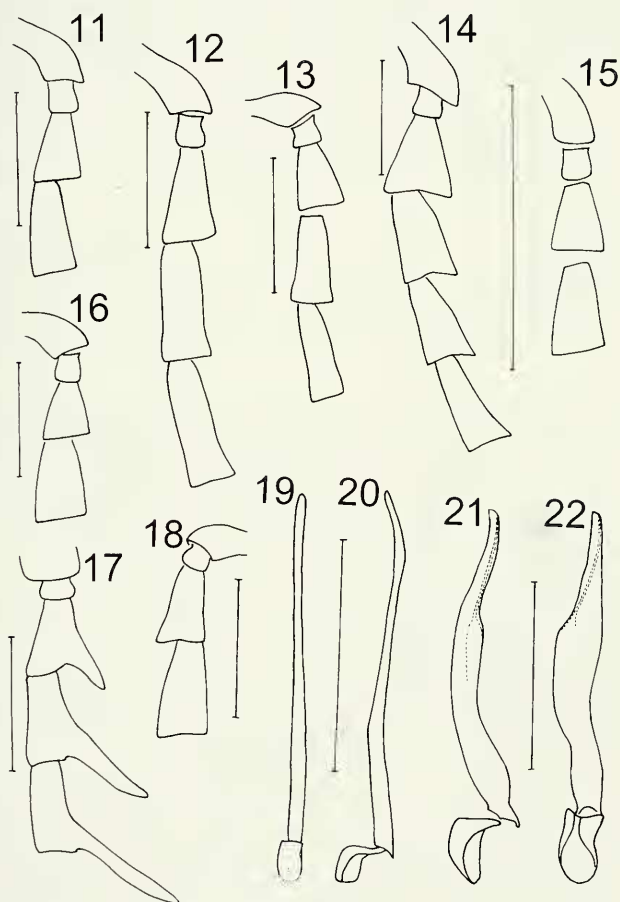
Figs 18, 21, 22, 29

Holotype: ♂ (NMPC), Sri Lanka: »Ceylon, Kandy, III. 1910, Dr Uzel leg.«

Etymology: Named in honour of the collector.

DESCRIPTION

Body dark brown to black, only pronotum and anterior 3/5 of elytra yellow. Head with large eyes, eye diameter 1.7 times longer than interocular distance (Fig. 29). Antennae reaching to elytral midlength, segment 4 is 1.3 times longer than 3 (Fig. 18). Pronotum transverse, lateral margins emarginate, posterior angles projected obliquely

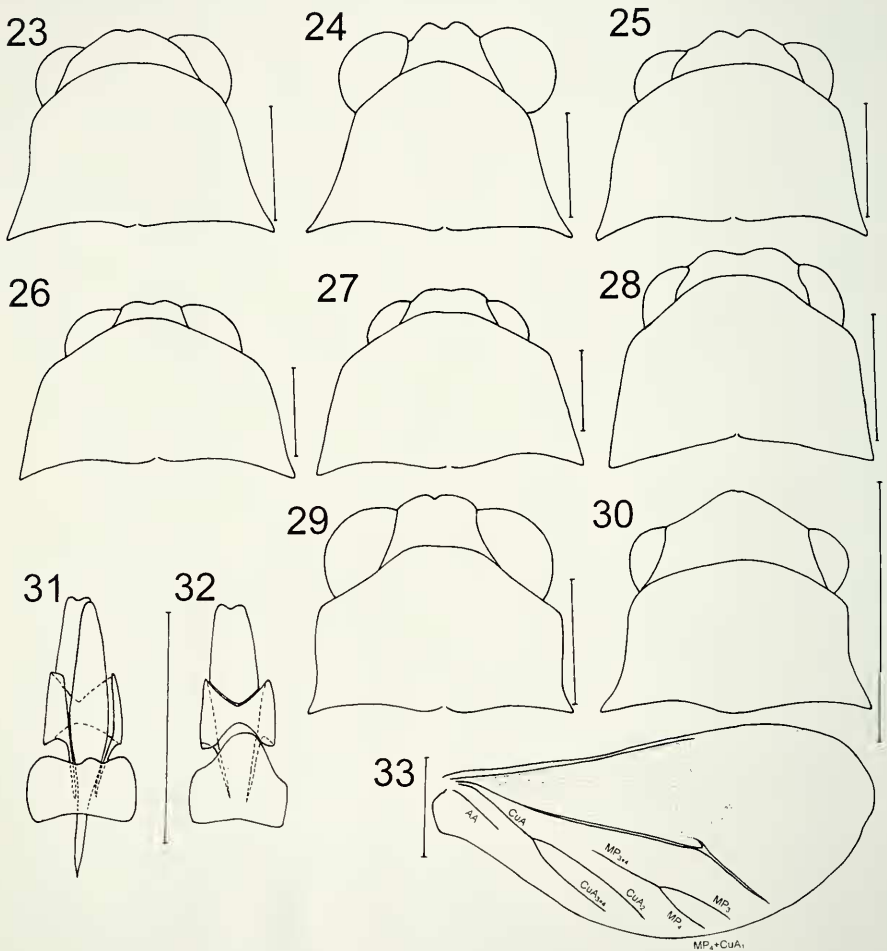


Figs 11-22

Basal antennal segments of: 11: *Melaneros inermis* sp. n., 12: *M. oculus* sp. n., 13: *M. kejvali* sp. n., 14: *M. cardamomensis* sp. n., 15: *M. parvus* sp. n., 16: *M. pacholatkoi* sp. n., 17: *M. bicoloratus* sp. n., 18: *M. uzeli* sp. n.; Figs 19-22: Male genitalia of: 19-20: *M. parvus* sp. n., 21-22: *M. uzeli* sp. n. Scale = 0.5 mm.

backwards (Fig. 29). Scutellum black, subquadrate, apically emarginate. Elytra 3.3 times longer than humeral width, nearly parallel-sided. Male genitalia simple (Fig. 21, 22), with two medially divergent dorsoapical sutures. Body length: 4 mm, humeral width: 1.1 mm.

COMMENTS: *M. uzeli* sp. n. is considered to be a member of the *samuelsoni* group (BOCAKOVA, 1997). It seems to be closely related to *M. simplex* Bocáková, 1997 from which it differs in the ventrally arched aedeagus.



Figs 23-30

Head and pronotum of: 23: *Melaneros inermis* sp. n., 24: *M. oculus* sp. n., 25: *M. kejvali* sp. n., 26: *M. cardamomensis* sp. n., 27: *M. pacholatkoii* sp. n., 28: *M. bicoloratus* sp. n., 29: *M. uzeli* sp. n., 30: *M. parvus* sp. n.; Figs 31, 32: Terminal abdominal segments of *M. parvus* sp. n.; Fig. 33: Wing venation of *M. parvus* sp. n. Scale = 0.5 mm.

Melaneros bicoloratus sp. n.

Figs 9, 10, 17, 28

Holotype: ♂ (MHNG) Sri Lanka: »Thuvaites, Ceylon, 1872»; paratypes: Sri Lanka: »Thuvaites, Ceylon», without other data, 2 ♂ (MHNG, LMBC).

Etymology: Named according to the body coloration.

DESCRIPTION

Body dark brown to black, only anterior half of elytra yellow. Head with small eyes, interocular distance 1.18 times as long as eye diameter (Fig. 28). Antennae shortly flabellate (Fig. 17), lamellae of middle segments as long as segment body. Antennae reaching apical third of elytra. Pronotum with lateral margins straight, divergent backwards, anterior margin produced forwards (Fig. 28). Scutellum black, subquadrate. Elytra 3 times longer than humeral width, nearly parallel-sided. Male genitalia simple, laterally projected in distal portion, provided with a distal opening (Figs 9, 10). Body length: 4.1 mm, humeral width: 1.1 mm.

COMMENTS: Species related to *M. kejvali* sp. n. but differs in having flabellate antennae, entirely black pronotum and different shape of the aedeagus.

Melaneros parvus sp. n.

Figs 15, 19, 20, 30-33

Holotype: ♂ (MHNG), India: Madras, Anaimalai H., 18 km N Valparai, 1250 m, 18. XI. 1972, C. Besuchet, I. Löbl, R. Mussard leg.

Etymology: Named according to its very small body size.

DESCRIPTION

Extremely small species, body dark brown, only apical segment of antennae yellow. Head only slightly hidden by pronotum, provided with very small eyes, interocular distance twice longer than eye diameter in lateral view (Fig. 30). Antennae very long, reaching apical fifth of elytra, simple, segment 3 slightly shorter than 4 (Fig. 15). Terminal segment of maxillary palpi strongly pointed apically. Pronotum transverse, lateral margins strongly emarginate, posterior angles projected obliquely backwards (Fig. 30). Scutellum apically emarginate. Elytra covered with long erect pubescence, 3 times longer than humeral width, elytra slightly divergent in apical half of the suture. Each elytron only with 4 primary costae and one secondary costa (between primary costa 4 and lateral margin), primary costa 1 missing in distal portion, therefore each elytron narrowed apically. Reticulate cells irregular. Wing venation with many reductions (Fig. 33). Proximal attachment of the hind branch of media posterior (MP₃₊₄) to MP₁₊₂ missing, CuA₁ also missing, anal anterior vein (AA) reduced distally and meets no of CuA branches. Anal field strongly reduced and anal posterior nerve (AP₃₊₄) missing. Terminal tergum and sternum apically emarginate (Figs 31, 32). Male genitalia stick-formed, distal portion curved ventrally (Fig. 20). Body length: 2.15 mm, humeral width: 0.55 mm.

COMMENTS: It differs from all other known *Melaneros* in its minute body size, in the shape of head, in elytra provided with only primary costae and only one secondary costa, in reduced reticulate cells, in the reductions of the wing venation and in the shape of aedeagus.

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